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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,573

06/24/2005

Naoki Kobayashi

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6434

22428

7590

07/27/2006

FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER

HUANG, WEN WU

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/540,573

Applicant(s)

KOBAYASHI ET AL.

Examiner

Wen W. Huang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 and 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harano (US PUB NO. 2002/0142794 A1) in view of Wong (US. 6,615,026 B1).

Regarding **claim 1**, Harano teaches a portable telephone (see Harano, fig. 8) comprising

an upper casing (see Harano, fig. 8, component 21) provided with a speaker (see Harano, fig. 8, component 25) and a display screen (see Harano, fig. 8, component 26) and a lower casing (see Harano, fig. 8, component 22) on which a keyboard is disposed (see Harano, fig. 8, component 23), wherein an antenna is mounted on at least one of an upper end of the upper casing and a lower end of the lower casing (see Harano, fig. 8, components 23 and 24).

Harano is silent to teaching that wherein a dielectric member with a predetermined dielectric constant and little loss is mounted on a back side or a front side of the antenna. However, the claimed limitation is well known as evidenced by Wong.

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In the same field of endeavor, Wong teaches a portable telephone wherein a dielectric member (see Wong, fig. 1, component 18) with a predetermined dielectric constant and little loss (see Wong, col. 3, lines 10-15) is mounted on a back side or a front side of the antenna (see Wong, fig. 1, component 12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Harano with the teaching of Wong in order to maximize the reflection of energy away from the user's head (see Wong, col. 2, lines 13-14).

Regarding **claim 3**, the combination of Harano and Wong also teaches the portable telephone according to claim 1, wherein the dielectric member is a dielectric member in shape of hemicylinder (see Wong, fig. 2, component 18).

Regarding **claim 4**, the combination of Harano and Wong also teaches the portable telephone according to claim 1, wherein the dielectric member is a dielectric member in shape of rectangular (see Wong, fig. 4, component 18).

Regarding **claim 5**, the combination of Harano and Wong also teaches the portable telephone according to claim 1, wherein the dielectric member has a curved surface on a side opposite to the antenna (see Wong, fig. 2, component 18).

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Regarding **claim 6**, the combination of Harano and Wong also teaches the portable telephone according to claim 1, wherein the antenna is a built-in antenna built in the upper casing or the lower casing (see Harano, fig. 8, component 24).

Regarding **claim 7**, the combination of Harano and Wong also teaches the portable telephone according to claim 1, wherein the antenna is a dipole antenna (see Wong, col. 2, lines 49-50).

Regarding **claim 8**, the combination of Harano and Wong also teaches the portable telephone according to claim 1, wherein the antenna is an inverted-L-shaped antenna (see Harano, fig. 5, component 11).

2. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harano and Wong as applied to claim 1 above, and further in view of Shoji et al. (US. 7,031,762 B2; hereinafter "Shoji")

Regarding **claim 9**, the combination of Harano and Wong teaches the portable telephone according to claim 1.

The combination of Harano and Wong is silent to teaching that wherein the antenna is a monopole antenna. However, the claimed limitation is well known in the art as evidenced by Shoji.

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In the same field of endeavor, Shoji teaches a portable telephone wherein the antenna is a monopole antenna (see Shoji, col. 2, line 12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Harano and Wong with the teaching of Shoji in order to alleviate degradation of antenna gain (see Shoji, col. 1, lines 44-46).

Regarding **claim 10**, the combination of Harano and Wong teaches the portable telephone according to claim 1.

The combination of Harano and Wong is silent to teaching that wherein the antenna is a meander antenna. However, the claimed limitation is well known in the art as evidenced by Shoji.

In the same field of endeavor, Shoji teaches a portable telephone wherein the antenna is a meander antenna (see Shoji, col. 2, line 13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Harano and Wong with the teaching of Shoji in order to alleviate degradation of antenna gain (see Shoji, col. 1, lines 44-46).

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harano and Wong as applied to claim 1 above, and further in view of Filipovic (US. 6,590,544 B1).

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Regarding **claim 2**, the combination of Harano and Wong teaches the portable telephone according to claim 1.

The combination of Harano and Wong is silent to teaching that wherein the dielectric member is a dielectric member in shape of hemisphere. However, the claimed limitation is well known in the art as evidenced by Filipovic.

In the same field of endeavor, Filipovic teaches an antenna wherein the dielectric member is a dielectric member in shape of hemisphere (see Filipovic, col. 2, lines 39-41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Harano and Wong with the teaching of Filipovic in order to improve the directivity of the antenna (see Filipovic, col. 2, lines 22-23).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Vuokko et al. (US 6,157,819) teach a dielectric member for a mobile phone antenna.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen W. Huang whose telephone number is (571) 272-7852. The examiner can normally be reached on 10am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay A. Maung can be reached on (571) 272-7882. The

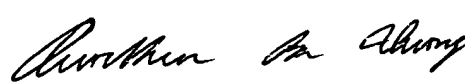
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fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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7/23/06

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QUOCHIEN B. VUONG  
PRIMARY EXAMINER